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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,645	02/16/2006	Mark Thomas Johnson	NL 030969	4576

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EXAMINER

TRA, TUYEN Q

ART UNIT	PAPER NUMBER
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2873

MAIL DATE	DELIVERY MODE
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10/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,645	Applicant(s) JOHNSON ET AL.	
	Examiner Tuyen Q. Tra	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-8 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>0807</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Oath/Declaration

1. The declaration filed 02/16/2006 is acceptable.

Drawings

2. The drawings filed on 02/16/2006 in this application are accepted.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 are rejected under 35 U.S.C. 102(b) as being anticipated by Van et al.

(WO03/065338 A1).

- a) With respect to claim 1, Van et al. discloses an electrophoretic medium comprising charged particles (6); a plurality of picture elements (1); electrodes (2.1,3.1) associated with each picture element (2) for receiving a potential difference; and drive means, the drive means being arranged for controlling the potential difference of each picture element (1) to be a grey scale potential difference for enabling the particles to occupy the position corresponding to the image information, wherein the drive means are further arranged to control for each picture element the grey scale potential difference for at least a subset of all drive waveforms to be a sequence of potential differences, the potential values in the sequence alternating in sign, wherein the energy in the potential difference (V.t) of one sign is substantially more than the energy of potential differences of the other sign (Figure 6A and 6B, page 17, line 10 - page 21, line 21).

- b) With respect to claim 2, Van et al. further discloses wherein the drive means are arranged for controlling the potential difference of each picture element (1) to be a reset potential difference having a reset value and a reset duration for enabling particles (6) to substantially occupy one of the extreme positions, prior to the grey scale potential differences (page 12, line 12-14).
- c) With respect to claim 6, Van et al. further discloses wherein the sequence of potential differences comprises at least one time interval in which the applied voltage has a voltage value below a threshold voltage value below which the particle remain substantially in their position (page 12, line 29 - page 13, line 6).
- d) With respect to claim 7, Van et al. further discloses wherein an electrophoretic medium (5) comprising charged particles (6); a plurality of picture elements (1), in which method the grey scale potential differences for at least a subset of all drive waveforms for setting a picture element to a greyscale optical state is applied in a sequence of potential differences, the potential values in the sequence alternating in sign, wherein the energy in the potential difference ($V.t$) of one sign is substantially more than the energy of potential differences of the other sign (Figure 6A and 6B; page 17, line 10 - page 21, line 21).
- e) With respect to claim 8, Van et al. further discloses wherein prior to application of the grey scale potential differences reset potential differences are applied having a reset value and a reset duration for enabling particles (6) to substantially occupy one of the extreme positions (page 14, lines 24-29).
- f) With respect to claim 12, Van et al. further discloses wherein the applied sequence of potential differences comprises at least one time interval in which the applied voltage has a

voltage value below a threshold voltage value below which the particle remain substantially in their position (page 16, lines 14-19).

g) With respect to claims 13-15, Van et al. further discloses wherein the program is run on a computer; a program code means stored on a computer readable medium for performing when the program is run on a computer; wherein program code means for use in display panel, for performing the action specific for the claims (page 21, lines 5-20).

h) With respect to claim 16, Van et al. further disclose wherein an electrophoretic medium comprising charged particles (6); a plurality of picture elements (1); electrodes (2.1,3.1) associated with each picture element (1) for receiving a potential difference; the drive means being arranged for controlling the potential difference of each picture element (1) to be a grey scale potential difference for enabling the particles (6) to occupy the position corresponding to the image information, the drive means being further arranged to control for each picture element the grey scale potential difference for at least a subset of all drive waveforms to be a sequence of potential differences, the potential values in the sequence alternating in sign, wherein the energy in the potential difference ($V.t$) of one sign is substantially more than the energy of potential differences of the other sign (Figure 6A and 6B, page 17, line 10 - page 21, line 21).

Allowable Subject Matter

5. Claims 3-5 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reason for the indication of allowable subject matter is that (claims 3 and 9) the grey scale potential difference comprises a symmetric subsequence of potential differences, the

potential values in the sequence alternating in sign, wherein the energy in the potential difference (V.t) of one sign is substantially the same as the energy in potential difference of the opposite sign disclosed in the claims is not found in the prior art.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen Q. Tra whose telephone number is 571-272-2343. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT

August 28, 2007


RICKY MACK
SUPERVISORY PATENT EXAMINER